

**BILLING CODE 3510-22-P** 

#### DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

RIN 0648-XC893

Takes of Marine Mammals Incidental to Specified Activities; Taking Marine Mammals Incidental to Rocky Intertidal Monitoring Surveys along the Oregon and California Coasts AGENCY: National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce.

ACTION: Notice; proposed incidental harassment authorization; request for comments. SUMMARY: NMFS has received an application from the Partnership for Interdisciplinary Study of Coastal Oceans (PISCO) at the University of California (UC) Santa Cruz for an Incidental Harassment Authorization (IHA) to take marine mammals, by harassment, incidental to rocky intertidal monitoring surveys. Pursuant to the Marine Mammal Protection Act (MMPA), NMFS is requesting comments on its proposal to issue an IHA to PISCO to incidentally take, by Level B harassment only, marine mammals during the specified activity. DATES: Comments and information must be received no later than [insert date 30 days after date of publication in the FEDERAL REGISTER].

ADDRESSES: Comments on the application should be addressed to Michael Payne, Chief, Permits and Conservation Division, Office of Protected Resources, National Marine Fisheries Service, 1315 East-West Highway, Silver Spring, MD 20910. The mailbox address for providing email comments is <a href="mailto:ITP.Nachman@noaa.gov">ITP.Nachman@noaa.gov</a>. NMFS is not responsible for e-mail comments sent to addresses other than the one provided here. Comments sent via e-mail, including all attachments, must not exceed a 25-megabyte file size.

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Instructions: All comments received are a part of the public record and will generally be posted to <a href="http://www.nmfs.noaa.gov/pr/permits/incidental.htm">http://www.nmfs.noaa.gov/pr/permits/incidental.htm</a> without change. All Personal Identifying Information (e.g., name, address) voluntarily submitted by the commenter may be publicly accessible. Do not submit Confidential Business Information or otherwise sensitive or protected information.

An electronic copy of the application containing a list of the references used in this document and associated Environmental Assessment (EA) may be obtained by writing to the address specified above, telephoning the contact listed below (see FOR FURTHER INFORMATION CONTACT), or visiting the internet at:

http://www.nmfs.noaa.gov/pr/permits/incidental.htm. PISCO's 2012-2013 monitoring report can also be found at this website. Documents cited in this notice may also be viewed, by appointment, during regular business hours, at the aforementioned address.

FOR FURTHER INFORMATION CONTACT: Candace Nachman, Office of Protected Resources, NMFS, (301) 427-8401.

#### SUPPLEMENTARY INFORMATION:

## Background

Sections 101(a)(5)(A) and (D) of the MMPA (16 U.S.C. 1361 et seq.) direct the Secretary of Commerce to allow, upon request, the incidental, but not intentional, taking of small numbers of marine mammals by U.S. citizens who engage in a specified activity (other than commercial fishing) within a specified geographical region if certain findings are made and either regulations are issued or, if the taking is limited to harassment, a notice of a proposed authorization is provided to the public for review.

Authorization for incidental takings shall be granted if NMFS finds that the taking will

have a negligible impact on the species or stock(s), will not have an unmitigable adverse impact on the availability of the species or stock(s) for subsistence uses (where relevant), and if the permissible methods of taking, other means of effecting the least practicable impact on the species or stock and its habitat, and requirements pertaining to the mitigation, monitoring and reporting of such takings are set forth. NMFS has defined "negligible impact" in 50 CFR 216.103 as "...an impact resulting from the specified activity that cannot be reasonably expected to, and is not reasonably likely to, adversely affect the species or stock through effects on annual rates of recruitment or survival."

Section 101(a)(5)(D) of the MMPA established an expedited process by which citizens of the United States can apply for an authorization to incidentally take small numbers of marine mammals by harassment. Section 101(a)(5)(D) establishes a 45-day time limit for NMFS review of an application followed by a 30-day public notice and comment period on any proposed authorizations for the incidental harassment of marine mammals. Within 45 days of the close of the comment period, NMFS must either issue or deny the authorization. Except with respect to certain activities not pertinent here, the MMPA defines "harassment" as: "any act of pursuit, torment, or annoyance which (i) has the potential to injure a marine mammal or marine mammal stock in the wild [Level A harassment]; or (ii) has the potential to disturb a marine mammal or marine mammal stock in the wild by causing disruption of behavioral patterns, including, but not limited to, migration, breathing, nursing, breeding, feeding, or sheltering [Level B harassment]." Summary of Request

On July 10, 2013, NMFS received an application from PISCO for the taking of marine mammals incidental to rocky intertidal monitoring surveys along the Oregon and California coasts. NMFS determined that the application was adequate and complete on July 31, 2013. In

December 2012, NMFS issued a 1-year IHA to PISCO to take marine mammals incidental to these same proposed activities (77 FR 72327, December 5, 2012). This IHA will expire on December 2, 2013.

The research group at UC Santa Cruz operates in collaboration with two large-scale marine research programs: PISCO and the Multi-agency Rocky Intertidal Network. The research group at UC Santa Cruz (PISCO) is responsible for many of the ongoing rocky intertidal monitoring programs along the Pacific coast. Monitoring occurs at rocky intertidal sites, often large bedrock benches, from the high intertidal to the water's edge. Long-term monitoring projects include Community Structure Monitoring, Intertidal Biodiversity Surveys, Marine Protected Area Baseline Monitoring, Intertidal Recruitment Monitoring, and Ocean Acidification. Research is conducted throughout the year along the California and Oregon coasts and will continue indefinitely. Most sites are sampled one to two times per year over a 4-6 hour period during a negative low tide series. This IHA, if issued, though, would only be effective for a 12-month period from the date of its issuance. The following specific aspects of the proposed activities are likely to result in the take of marine mammals: presence of survey personnel near pinniped haulout sites and approach of survey personnel towards hauled out pinnipeds. Take, by Level B harassment only, of individuals of three species of marine mammals is anticipated to result from the specified activity.

Description of the Specified Activity and Specified Geographic Region

PISCO focuses on understanding the nearshore ecosystems of the U.S. west coast through a number of interdisciplinary collaborations. PISCO integrates long-term monitoring of ecological and oceanographic processes at dozens of sites with experimental work in the lab and field. A short description of each project is contained here. Additional information can be found

in PISCO's application (see ADDRESSES).

Community Structure Monitoring involves the use of permanent photoplot quadrats which target specific algal and invertebrate assemblages (e.g. mussels, rockweeds, barnacles). Each photoplot is photographed and scored for percent cover. The Community Structure Monitoring approach is based largely on surveys that quantify the percent cover and distribution of algae and invertebrates that constitute these communities. This approach allows researchers to quantify both the patterns of abundance of targeted species, as well as characterize changes in the communities in which they reside. Such information provides managers with insight into the causes and consequences of changes in species abundance. Each Community Structure site is surveyed over a 1-day period during a low tide series one to two times a year. Sites, location, number of times sampled per year, and typical sampling months for each site are presented in Table 1 in PISCO's application (see ADDRESSES).

Biodiversity Surveys, which are part of a long-term monitoring project and are conducted every 3-5 years at established sites, involve point contact identification along permanent transects, mobile invertebrate quadrat counts, sea star band counts, and tidal height topographic measurements. Table 2 in PISCO's application (see ADDRESSES) lists established biodiversity sites in Oregon and California. No Biodiversity Surveys are planned to be conducted during the 12-month period that this proposed IHA would be effective (if issued).

In September 2007, the state of California began establishing a network of Marine Protected Areas along the California coast as part of the Marine Life Protection Act (MLPA). Under baseline monitoring programs funded by Sea Grant and the Ocean Protection Council, PISCO established additional intertidal monitoring sites in the Central Coast (Table 3 in PISCO's application), North Central Coast (Table 4 in PISCO's application), and South Coast

(Table 5 in PISCO's application) study regions. Baseline characterization of newly established areas involves sampling of these new sites, as well as established sites both within and outside of marine protected areas. These sites were sampled using existing Community Structure and Biodiversity protocols for consistency. Resampling of newly established sites may take place every 5 years as part of future marine protected area evaluation.

Intertidal recruitment monitoring collects data on invertebrate larval recruitment. Mussel and other bivalve recruits are collected in mesh pot-scrubbers bolted into the substrate. Barnacle recruits and cyprids are collected on PVC plates covered in non-slip tape and bolted to the substrate. Both are collected once a month and processed in the lab. Intertidal recruitment monitoring is currently conducted on a monthly basis at two central California sites: Terrace Point and Hopkins.

The Ocean Margin Ecosystems Group for Acidification Studies is a National Science Foundation funded project that involves research at eight sites along the California Current upwelling system from Southern California into Oregon. PISCO is responsible for research at three of these sites—Hopkins, Terrace Point, and Soberanes—located in the Monterey Bay region of mainland California. The intention of this collaboration is to monitor oceanic pH on large spatial and temporal scales and to determine if any relationship exists between changing ocean chemistry and the state of intertidal calcifying organisms. The project involves field experiments, as well as lab studies. Currently these sites are visited two to three times per month for sampling and equipment maintenance.

During summer 2014, PISCO will sample eight sites along the Oregon coast (see Table 7 in PISCO's application) using a combination of community structure and biodiversity survey methods to establish a baseline prior to the proposed installation of several wave energy

conversion device arrays. This baseline will be used to assess the effects of the arrays on nearshore communities.

# Specified Geographic Location and Activity Timeframe

PISCO's research is conducted throughout the year along the California and Oregon coasts. Most sites are sampled one to two times per year over a 1-day period (4-6 hours per site) during a negative low tide series. Due to the large number of research sites, scheduling constraints, the necessity for negative low tides and favorable weather/ocean conditions, exact survey dates are variable and difficult to predict. Table 1 in PISCO's application (see ADDRESSES) outlines the typical sampling season for the various locations. Some sampling is anticipated to occur in all months, except for January, August, and September.

The intertidal zones where PISCO conducts intertidal monitoring are also areas where pinnipeds can be found hauled out on the shore at or adjacent to some research sites. Accessing portions of the intertidal habitat may cause incidental Level B (behavioral) harassment of pinnipeds through some unavoidable approaches if pinnipeds are hauled out directly in the study plots or while biologists walk from one location to another. No motorized equipment is involved in conducting these surveys. The species for which Level B harassment is requested are: California sea lions (Zalophus californianus californianus); harbor seals (Phoca vitulina richardii); and northern elephant seals (Mirounga angustirostris).

Description of Marine Mammals in the Area of the Specified Activity

Several pinniped species can be found along the California and Oregon coasts. The three that are most likely to occur at some of the research sites are California sea lion, harbor seal, and northern elephant seal. On rare occasions, PISCO researchers have seen very small numbers (i.e., five or fewer) of Steller sea lions at one of the sampling sites. These sightings are rare.

Therefore, encounters are not expected. However, if Steller sea lions are sighted before approaching a sampling site, researchers will abandon approach and return at a later date. For this reason, this species is not considered further in this proposed IHA notice.

We refer the public to Carretta <u>et al.</u> (2013) for general information on these species which are presented below this section. The publication is available on the internet at: <a href="http://www.nmfs.noaa.gov/pr/sars/pdf/po2012.pdf">http://www.nmfs.noaa.gov/pr/sars/pdf/po2012.pdf</a>. Additional information on the status, distribution, seasonal distribution, and life history can also be found in PISCO's application. <a href="https://www.nmfs.noaa.gov/pr/sars/pdf/po2012.pdf">Northern Elephant Seal</a>

Northern elephant seals are not listed as threatened or endangered under the Endangered Species Act (ESA), nor are they categorized as depleted under the MMPA. The estimated population of the California breeding stock is approximately 124,000 animals with a minimum estimate of 74,913 (Carretta et. al., 2013).

Northern elephant seals range in the eastern and central North Pacific Ocean, from as far north as Alaska and as far south as Mexico. Northern elephant seals spend much of the year, generally about nine months, in the ocean. They are usually underwater, diving to depths of about 330-800 m (1,000-2,500 ft) for 20- to 30-minute intervals with only short breaks at the surface. They are rarely seen out at sea for this reason. While on land, they prefer sandy beaches.

Northern elephant seals breed and give birth in California (U.S.) and Baja California (Mexico), primarily on offshore islands (Stewart <u>et al.</u>, 1994), from December to March (Stewart and Huber, 1993). Males feed near the eastern Aleutian Islands and in the Gulf of Alaska, and females feed further south, south of 45° N (Stewart and Huber, 1993; Le Boeuf <u>et al.</u>, 1993). Adults return to land between March and August to molt, with males returning later than

females. Adults return to their feeding areas again between their spring/summer molting and their winter breeding seasons.

During PISCO research activities, the maximum number of northern elephant seals observed at a single site was at least 10 adults plus an unknown number of pups. These were observed offshore of Piedras Blancas. A small group of five adult elephant seals and five pups has been observed in the vicinity of our site at Piedras Blancas, and one elephant seal has been observed at Pigeon Point.

#### California Sea Lion

California sea lions are not listed as threatened or endangered under the ESA, nor are they categorized as depleted under the MMPA. The California sea lion is now a full species, separated from the Galapagos sea lion (<u>Z. wollebaeki</u>) and the extinct Japanese sea lion (<u>Z. japonicus</u>) (Brunner, 2003; Wolf <u>et al.</u>, 2007; Schramm <u>et al.</u>, 2009). The estimated population of the U.S. stock of California sea lion is approximately 296,750 animals with a minimum of 153,337 individuals, and the current maximum population growth rate is 12 percent (Carretta <u>et al.</u>, 2013).

California sea lion breeding areas are on islands located in southern California, in western Baja California, Mexico, and the Gulf of California. During the breeding season, most California sea lions inhabit southern California and Mexico. Rookery sites in southern California are limited to the San Miguel Islands and the southerly Channel Islands of San Nicolas, Santa Barbara, and San Clemente (Carretta et al., 2011). Males establish breeding territories during May through July on both land and in the water. Females come ashore in mid-May and June where they give birth to a single pup approximately 4-5 days after arrival and will nurse pups for about a week before going on their first feeding trip. Females will alternate

feeding trips with nursing bouts until the pup is weaned between 4 and 10 months of age (NMML, 2010). In central California, a small number of pups are born on Ano Nuevo Island, Southeast Farallon Island, and occasionally at a few other locations; otherwise, the central California population is composed of non-breeders.

A 2005 haul-out count of California sea lions between the Oregon/California border and Point Conception as well as the Channel Islands found 141,842 individuals (Carretta et al., 2010). The number of sea lions found at any one of PISCO's study sites is variable, and often no California sea lions are observed during sampling.

# Pacific Harbor Seal

Pacific harbor seals are not listed as threatened or endangered under the ESA, nor are they categorized as depleted under the MMPA. The estimated population of the California stock of Pacific harbor seals is approximately 30,196 animals with a minimum estimated population size of 26,667 (Carretta et al., 2013). No current estimation of annual growth rate has been made for the California stock (Carretta et al., 2013). A 1999 census of the Oregon/Washington harbor seal stock found 16,165 individuals, of which 5,735 were in Oregon (Carretta et al., 2013). This stock is growing at a maximum annual rate of 12% (Carretta et al., 2013).

The animals inhabit near-shore coastal and estuarine areas from Baja California, Mexico, to the Pribilof Islands in Alaska. Pacific harbor seals are divided into two subspecies: P. v. stejnegeri in the western North Pacific, near Japan, and P. v. richardii in the northeast Pacific Ocean. The latter subspecies, recognized as three separate stocks, inhabits the west coast of the continental U.S., including: the outer coastal waters of Oregon and Washington states; Washington state inland waters; and Alaska coastal and inland waters.

In California, over 500 harbor seal haulout sites are widely distributed along the mainland

and offshore islands, and include rocky shores, beaches and intertidal sandbars (Lowry et al., 2005). Harbor seals mate at sea, and females give birth during the spring and summer, although, the pupping season varies with latitude. Pups are nursed for an average of 24 days and are ready to swim minutes after being born. Harbor seal pupping takes place at many locations, and rookery size varies from a few pups to many hundreds of pups. Pupping generally occurs between March and June, and molting occurs between May and July (NCCOS, 2007).

At several sites, harbor seals are often observed and have the potential to be disturbed by researchers accessing or sampling the site. The largest number of harbor seals occurs at Hopkins where often 20-30 adults and 10-15 pups are hauled-out on a small beach adjacent to the sampling site.

# Other Marine Mammals in the Proposed Action Area

California (southern) sea otters (Enhydra lutris nereis), listed as threatened under the ESA and categorized as depleted under the MMPA, usually range in coastal waters within 2 km (1.2 mi) of shore. This species is managed by the U.S. Fish and Wildlife Service and is not considered further in this notice.

Potential Effects of the Specified Activity on Marine Mammals

The appearance of researchers may have the potential to cause Level B harassment of any pinnipeds hauled out at sampling sites. Although marine mammals are never deliberately approached by abalone survey personnel, approach may be unavoidable if pinnipeds are hauled out in the immediate vicinity of the permanent study plots. Disturbance may result in reactions ranging from an animal simply becoming alert to the presence of researchers (e.g., turning the head, assuming a more upright posture) to flushing from the haul-out site into the water. NMFS does not consider the lesser reactions to constitute behavioral harassment, or Level B harassment

takes, but rather assumes that pinnipeds that move greater than 1 m (3.3 ft) or change the speed or direction of their movement in response to the presence of researchers are behaviorally harassed, and thus subject to Level B taking. Animals that respond to the presence of researchers by becoming alert, but do not move or change the nature of locomotion as described, are not considered to have been subject to behavioral harassment.

Numerous studies have shown that human activity can flush harbor seals off haulout sites (Allen et al., 1984; Calambokidis et al., 1991; Suryan and Harvey, 1999; Mortenson et al., 2000). The Hawaiian monk seal (Monachus schauinslandi) has been shown to avoid beaches that have been disturbed often by humans (Kenyon, 1972). And in one case, human disturbance appeared to cause Steller sea lions to desert a breeding area at Northeast Point on St. Paul Island, Alaska (Kenyon, 1962).

Typically, even those reactions constituting Level B harassment would result at most in temporary, short-term disturbance. In any given study season, researchers will visit sites one to two times per year for a total of 4-6 hours per visit. Therefore, disturbance of pinnipeds resulting from the presence of researchers lasts only for short periods of time and is separated by significant amounts of time in which no disturbance occurs. Because such disturbance is sporadic, rather than chronic, and of low intensity, individual marine mammals are unlikely to incur any detrimental impacts to vital rates or ability to forage and, thus, loss of fitness. Correspondingly, even local populations, much less the overall stocks of animals, are extremely unlikely to accrue any significantly detrimental impacts.

There are three ways in which disturbance, as described previously, could result in more than Level B harassment of marine mammals. All three are most likely to be consequences of stampeding, a potentially dangerous occurrence in which large numbers of animals succumb to

mass panic and rush away from a stimulus, an occurrence that is not expected at the proposed sampling sites. The three situations are (1) falling when entering the water at high-relief locations; (2) extended separation of mothers and pups; and (3) crushing of elephant seal pups by large males during a stampede.

Because hauled-out animals may move towards the water when disturbed, there is the risk of injury if animals stampede towards shorelines with precipitous relief (e.g., cliffs). However, while cliffs do exist along the coast, shoreline habitats near the abalone study sites are of steeply sloping rocks with unimpeded and non-obstructive access to the water. If disturbed, hauled-out animals in these situations may move toward the water without risk of encountering barriers or hazards that would otherwise prevent them from leaving the area. In these circumstances, the risk of injury, serious injury, or death to hauled-out animals is very low. Thus, abalone research activity poses no risk that disturbed animals may fall and be injured or killed as a result of disturbance at high-relief locations.

The risk of marine mammal injury, serious injury, or mortality associated with rocky intertidal monitoring increases somewhat if disturbances occur during breeding season. These situations present increased potential for mothers and dependent pups to become separated and, if separated pairs do not quickly reunite, the risk of mortality to pups (through starvation) may increase. Separately, adult male elephant seals may trample elephant seal pups if disturbed, which could potentially result in the injury, serious injury, or mortality of the pups. The risk of either of these situations is greater in the event of a stampede.

Very few pups are anticipated to be encountered during the proposed monitoring surveys.

No California sea lion pups are anticipated to be encountered, as rookery sites are typically limited to the islands. A very small number of harbor seal and northern elephant seal pups have

been observed at a couple of the proposed monitoring sites over the past years. Though elephant seal pups are occasionally present when researchers visit survey sites, risk of pup mortalities is very low because elephant seals are far less reactive to researcher presence than the other two species. Further, pups are typically found on sand beaches, while study sites are located in the rocky intertidal zone, meaning that there is typically a buffer between researchers and pups. Finally, the caution used by researchers in approaching sites generally precludes the possibility of behavior, such as stampeding, that could result in extended separation of mothers and dependent pups or trampling of pups. No research would occur where separation of mother and her nursing pup or crushing of pups can become a concern.

In summary, NMFS does not anticipate that the proposed activities would result in the injury, serious injury, or mortality of pinnipeds because pups are only found at a couple of the proposed sampling locations during certain times of the year and that many rookeries occur on the offshore islands and not the mainland areas where the proposed activities would occur. In addition, researchers will exercise appropriate caution approaching sites, especially when pups are present and will redirect activities when pups are present.

## **Summary of Previous Monitoring**

PISCO complied with the mitigation and monitoring that we required under the IHA issued in December 2012. In compliance with the IHA, PISCO submitted a reporting detailing the activities and marine mammal monitoring they conducted. The IHA required PISCO to conduct counts of pinnipeds present at study sites prior to approaching the sites and to record species counts and any observed reactions to the presence of the researchers.

From December 3, 2012, through August 31, 2013, PISCO researchers conducted rocky intertidal sampling at 73 sites during 79 days. During this time period, no injured, stranded, or

dead pinnipeds were observed. Tables 9, 10, and 11 in PISCO's monitoring report (see ADDRESSES) outline marine mammal observations and reactions. No takes of northern elephant seals occurred at any of the sites. Level B harassment takes of harbor seals and California sea lions included short movements of 1-3 m (3.3-10 ft) away from researchers and in some instances flushing into the water.

Based on the results from the previous monitoring report, we conclude that these results support our original findings that the mitigation measures set forth in the 2012-2012 IHA effected the least practicable impact on the species or stocks. During periods of low tide (e.g., when tides are 0.6 m (2 ft) or less and low enough for pinnipeds to haul-out), we would expect the pinnipeds to return to the haulout site within 60 minutes of the disturbance (Allen et al., 1985). The effects to pinnipeds appear at the most to displace the animals temporarily from their haul out sites, and we do not expect that the pinnipeds would permanently abandon a haul-out site during the conduct of rocky intertidal surveys.

The potential effects to marine mammals described in this section of the document do not take into consideration the proposed monitoring and mitigation measures described later in this document (see the "Proposed Mitigation" and "Proposed Monitoring and Reporting" sections) which, as noted, should effect the least practicable impact on affected marine mammal species and stocks.

## Anticipated Effects on Marine Mammal Habitat

The only habitat modification associated with the proposed activity is the placement of permanent bolts and other sampling equipment in the intertidal. Bolts are installed during the set-up of a site and, at existing sites, this has already occurred. In some instances, bolts will need to be replaced or installed for new plots. Bolts are 7.6 to 12.7 cm (2 to 5 in) long, stainless steel

1 cm (3/8 in) Hex or Carriage bolts. They are installed by drilling a hole with a battery powered DeWalt 24 volt rotary hammer drill with a 1 cm (3/8 in) bit. The bolts protrude 1.3-7.6 cm (0.5-3 in) above the rock surface and are held in place with marine epoxy. Although the drill does produce noticeable noise, researchers have never observed an instance where near-by or offshore marine mammals were disturbed by it. Any marine mammal at the site would likely be disturbed by the presence of researchers and retreat to a distance where the noise of the drill would not increase the disturbance. In most instances, wind and wave noise also drown out the noise of the drill. The installation of bolts and other sampling equipment is conducted under the appropriate permits (Monterey Bay National Marine Sanctuary, California State Parks). Once a particular study has ended, the respective sampling equipment is removed. No trash or field gear is left at a site. Thus, the proposed activity is not expected to have any habitat-related effects, including to marine mammal prey species, that could cause significant or long-term consequences for individual marine mammals or their populations.

# **Proposed Mitigation**

In order to issue an incidental take authorization (ITA) under Section 101(a)(5)(D) of the MMPA, NMFS must, where applicable, set forth the permissible methods of taking pursuant to such activity, and other means of effecting the least practicable impact on such species or stock and its habitat, paying particular attention to rookeries, mating grounds, and areas of similar significance, and on the availability of such species or stock for taking for certain subsistence uses (where relevant).

PISCO proposes to implement several mitigation measures to reduce potential take by Level B (behavioral disturbance) harassment. Measures include: (1) conducting slow movements and staying close to the ground to prevent or minimize stampeding; (2) avoiding

loud noises (i.e., using hushed voices); (3) avoiding pinnipeds along access ways to sites by locating and taking a different access way and vacating the area as soon as sampling of the site is completed; (4) monitoring the offshore area for predators (such as killer whales and white sharks) and avoid flushing of pinnipeds when predators are observed in nearshore waters; (5) using binoculars to detect pinnipeds before close approach to avoid being seen by animals; (6) only flushing pinnipeds if they are located in the sampling plots and there are no other means to accomplish the survey (however, flushing must be done slowly and quietly so as not to cause a stampede); (7) no intentional flushing if pups are present at the sampling site; and (8) rescheduling sampling if Steller sea lions are present at the site.

The methodologies and actions noted in this section will be utilized and included as mitigation measures in any issued IHA to ensure that impacts to marine mammals are mitigated to the lowest level practicable. The primary method of mitigating the risk of disturbance to pinnipeds, which will be in use at all times, is the selection of judicious routes of approach to study sites, avoiding close contact with pinnipeds hauled out on shore, and the use of extreme caution upon approach. In no case will marine mammals be deliberately approached by survey personnel, and in all cases every possible measure will be taken to select a pathway of approach to study sites that minimizes the number of marine mammals potentially harassed. In general, researchers will stay inshore of pinnipeds whenever possible to allow maximum escape to the ocean. Each visit to a given study site will last for approximately 4-6 hours, after which the site is vacated and can be re-occupied by any marine mammals that may have been disturbed by the presence of researchers. By arriving before low tide, worker presence will tend to encourage pinnipeds to move to other areas for the day before they haul out and settle onto rocks at low tide.

PISCO will suspend sampling and monitoring operations immediately if an injured marine mammal is found in the vicinity of the project area and the monitoring activities could aggravate its condition.

NMFS has carefully evaluated PISCO's proposed mitigation measures and considered a range of other measures in the context of ensuring that NMFS prescribes the means of effecting the least practicable impact on the affected marine mammal species and stocks and their habitat. Our evaluation of potential measures included consideration of the following factors in relation to one another:

- the manner in which, and the degree to which, the successful implementation of the measure is expected to minimize adverse impacts to marine mammals;
- the proven or likely efficacy of the specific measure to minimize adverse impacts as planned; and
  - the practicability of the measure for applicant implementation.

Based on our evaluation of the applicant's proposed measures, NMFS has preliminarily determined that the proposed mitigation measures provide the means of effecting the least practicable impact on marine mammal species or stocks and their habitat, paying particular attention to rookeries, mating grounds, and areas of similar significance.

## Proposed Monitoring and Reporting

In order to issue an ITA for an activity, Section 101(a)(5)(D) of the MMPA states that NMFS must, where applicable, set forth "requirements pertaining to the monitoring and reporting of such taking". The MMPA implementing regulations at 50 CFR 216.104 (a)(13) indicate that requests for ITAs must include the suggested means of accomplishing the necessary monitoring and reporting that will result in increased knowledge of the species and of the level of

taking or impacts on populations of marine mammals that are expected to be present in the proposed action area.

PISCO can add to the knowledge of pinnipeds in California and Oregon by noting observations of: (1) unusual behaviors, numbers, or distributions of pinnipeds, such that any potential follow-up research can be conducted by the appropriate personnel; (2) tag-bearing carcasses of pinnipeds, allowing transmittal of the information to appropriate agencies and personnel; and (3) rare or unusual species of marine mammals for agency follow-up.

Proposed monitoring requirements in relation to PISCO's rocky intertidal monitoring will include observations made by the applicant. Information recorded will include species counts (with numbers of pups/juveniles when possible), numbers of observed disturbances, and descriptions of the disturbance behaviors during the monitoring surveys, including location, date, and time of the event. In addition, observations regarding the number and species of any marine mammals observed, either in the water or hauled out, at or adjacent to the site, will be recorded as part of field observations during research activities. Observations of unusual behaviors, numbers, or distributions of pinnipeds will be reported to NMFS so that any potential follow-up observations can be conducted by the appropriate personnel. In addition, observations of tagbearing pinniped carcasses as well as any rare or unusual species of marine mammals will be reported to NMFS. Information regarding physical and biological conditions pertaining to a site, as well as the date and time that research was conducted will also be noted.

If at any time injury, serious injury, or mortality of the species for which take is authorized should occur, or if take of any kind of any other marine mammal occurs, and such action may be a result of the proposed research, PISCO will suspend research activities and contact NMFS immediately to determine how best to proceed to ensure that another injury or

death does not occur and to ensure that the applicant remains in compliance with the MMPA.

A draft final report must be submitted to NMFS Office of Protected Resources within 60 days after the conclusion of the 2013-2014 field season or 60 days prior to the start of the next field season if a new IHA will be requested. The report will include a summary of the information gathered pursuant to the monitoring requirements set forth in the IHA. A final report must be submitted to the Director of the NMFS Office of Protected Resources and to the NMFS Southwest Office Regional Administrator within 30 days after receiving comments from NMFS on the draft final report. If no comments are received from NMFS, the draft final report will be considered to be the final report.

Estimated Take by Incidental Harassment

Except with respect to certain activities not pertinent here, the MMPA defines "harassment" as: any act of pursuit, torment, or annoyance which (i) has the potential to injure a marine mammal or marine mammal stock in the wild [Level A harassment]; or (ii) has the potential to disturb a marine mammal or marine mammal stock in the wild by causing disruption of behavioral patterns, including, but not limited to, migration, breathing, nursing, breeding, feeding, or sheltering [Level B harassment].

All anticipated takes would be by Level B harassment, involving temporary changes in behavior. The proposed mitigation and monitoring measures are expected to minimize the possibility of injurious or lethal takes such that take by injury, serious injury, or mortality is considered remote. Animals hauled out close to the actual survey sites may be disturbed by the presence of biologists and may alter their behavior or attempt to move away from the researchers.

As discussed earlier, NMFS considers an animal to have been harassed if it moved

greater than 1 m (3.3 ft) in response to the researcher's presence or if the animal was already moving and changed direction and/or speed, or if the animal flushed into the water. Animals that became alert without such movements were not considered harassed.

For the purpose of this proposed IHA, only Oregon and California sites that are frequently sampled and have a marine mammal presence during sampling were included in take estimates. Sites where only Biodiversity Surveys are conducted were not included due to the infrequency of sampling and rarity of occurrences of pinnipeds during sampling. In addition, Steller sea lions are not included in take estimates as they will not be disturbed by researchers or research activities since activities will not occur or will be suspended if Steller sea lions are present. A small number of harbor seal and northern elephant seal pup takes are anticipated as pups may be present at several sites during spring and summer sampling

Takes estimates are based on marine mammal observations from each site. Marine mammal observations are done as part of PISCO site observations, which include notes on physical and biological conditions at the site. The maximum number of marine mammals, by species, seen at any given time throughout the sampling day is recorded at the conclusion of sampling. A marine mammal is counted if it is seen on access ways to the site, at the site, or immediately up-coast or down-coast of the site. Marine mammals in the water immediately offshore are also recorded. Any other relevant information, including the location of a marine mammal relevant to the site, any unusual behavior, and the presence of pups is also noted.

These observations formed the basis from which researchers with extensive knowledge and experience at each site estimated the actual number of marine mammals that may be subject to take. In most cases the number of takes is based on the maximum number of marine mammals that have been observed at a site throughout the history of the site (2-3 observation per

year for 5-10 years or more). Section 6 in PISCO's application outlines the number of visits per year for each sampling site and the potential number of pinnipeds anticipated to be encountered at each site. Table 8 in PISCO's application outlines the number of potential takes per site (see ADDRESSES).

Based on this information, NMFS proposes to authorize the take, by Level B harassment only, of 60 California sea lions, 337 harbor seals, and 36 northern elephant seals. These numbers are considered to be maximum take estimates; therefore, actual take may be slightly less if animals decide to haul out at a different location for the day or animals are out foraging at the time of the survey activities.

Negligible Impact and Small Numbers Analysis and Preliminary Determination

NMFS typically includes our negligible impact and small numbers analyses and determinations under the same section heading of our <u>Federal Register</u> notices. Despite colocating these terms, we acknowledge that negligible impact and small numbers are distinct standards under the MMPA and treat them as such. The analyses presented below do not conflate the two standards; instead, each standard has been considered independently, and we have applied the relevant factors to inform our negligible impact and small numbers determinations.

NMFS has defined "negligible impact" in 50 CFR 216.103 as "...an impact resulting from the specified activity that cannot be reasonably expected to, and is not reasonably likely to, adversely affect the species or stock through effects on annual rates of recruitment or survival." In making a negligible impact determination, NMFS considers a variety of factors, including but not limited to: (1) the number of anticipated mortalities; (2) the number and nature of anticipated injuries; (3) the number, nature, intensity, and duration of Level B harassment; and (4) the

context in which the take occurs.

No injuries or mortalities are anticipated to occur as a result of PISCO's rocky intertidal monitoring, and none are proposed to be authorized. The behavioral harassments that could occur would be of limited duration, as researchers only conduct sampling one to two times per year at each site for a total of 4-6 hours per sampling event. Therefore, disturbance will be limited to a short duration, allowing pinnipeds to reoccupy the sites within a short amount of time.

Some of the pinniped species may use some of the sites during certain times of year to conduct pupping and/or breeding. However, some of these species prefer to use the offshore islands for these activities. At the sites where pups may be present, PISCO has proposed to implement certain mitigation measures, such as no intentional flushing if dependent pups are present, which will avoid mother/pup separation and trampling of pups.

Of the three marine mammal species anticipated to occur in the proposed activity areas, none are listed under the ESA. Table 1 in this document presents the abundance of each species or stock, the proposed take estimates, and the percentage of the affected populations or stocks that may be taken by harassment. Based on these estimates, PISCO would take less than 2.1% of each species or stock. Because these are maximum estimates, actual take numbers are likely to be lower, as some animals may select other haulout sites the day the researchers are present.

Based on the analysis contained herein of the likely effects of the specified activity on marine mammals and their habitat, and taking into consideration the implementation of the proposed mitigation and monitoring measures, NMFS preliminarily finds that the rocky intertidal monitoring program will result in the incidental take of small numbers of marine mammals, by Level B harassment only, and that the total taking from the rocky intertidal monitoring program

will have a negligible impact on the affected species or stocks.

Table 1. Population abundance estimates, total proposed Level B take, and percentage of population that may be taken

for the potentially affected species during the proposed rocky intertidal monitoring program.

Species	Abundance*	Total Proposed Level B Take	Percentage of Stock or Population
Harbor Seal	$30,196^{1} \\ 16,165^{2}$	337	1.1-2.1
California Sea Lion	296,750	60	0.02
Northern Elephant Seal	124,000	36	0.03

<sup>\*</sup>Abundance estimates are taken from the 2012 U.S. Pacific Marine Mammal Stock Assessments (Carretta et al., 2013).

Impact on Availability of Affected Species or Stock for Taking for Subsistence Uses

There are no relevant subsistence uses of marine mammals implicated by this action.

Therefore, NMFS has determined that the total taking of affected species or stocks would not have an unmitigable adverse impact on the availability of such species or stocks for taking for subsistence purposes.

Endangered Species Act (ESA)

None of the marine mammals for which incidental take is proposed are listed as threatened or endangered under the ESA. NMFS' Permits and Conservation Division worked with the NMFS Southwest Regional Office to ensure that Steller sea lions would be avoided and incidental take would not occur. Therefore, NMFS has determined that issuance of the proposed IHA to PISCO under section 101(a)(5)(D) of the MMPA will have no effect on species listed as threatened or endangered under the ESA.

National Environmental Policy Act (NEPA)

In 2012, we prepared an EA analyzing the potential effects to the human environment from conducting rocky intertidal surveys along the California and Oregon coasts and issued a Finding of No Significant Impact (FONSI) on the issuance of an IHA for PISCO's rocky intertidal surveys in accordance with section 6.01 of the NOAA Administrative Order 216-6

<sup>&</sup>lt;sup>1</sup> California stock abundance estimate; <sup>2</sup> Oregon/Washington stock abundance estimate

(Environmental Review Procedures for Implementing the National Environmental Policy Act,

May 20, 1999). PISCO's proposed activities and impacts for 2013-2014 are within the scope of

our 2012 EA and FONSI. We have reviewed the 2012 EA and determined that there are no new

direct, indirect, or cumulative impacts to the human and natural environment associated with the

IHA requiring evaluation in a supplemental EA and we, therefore, intend to reaffirm the 2012

FONSI.

**Proposed Authorization** 

As a result of these preliminary determinations, NMFS proposes to authorize the take of

marine mammals incidental to PISCO's rocky intertidal monitoring research activities, provided

the previously mentioned mitigation, monitoring, and reporting requirements are incorporated.

Dated: October 25, 2013.

Donna S. Wieting,

Director.

Office of Protected Resources.

National Marine Fisheries Service.

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